The Training School

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MANUAL TRAINING.

Of late we hear much about manual training. A few years ago that term seemed a very narrow one indeed, except to those who had given it very careful consideration and were therefore sure of its being an essential factor in the general development of the child. These enthusiasts educated the public taste to a great extent in this regard until manual training has become a part of the curriculum of many schools thruout the country. It has not yet reached its highest development, but I believe a few years will show a marked advancement along this line.

We have in our School a good opportunity to study the relationship between manual and industrial training. When all is said and done, there is but one end for our children and that is one of the various trades or industries, and this end is not that they shall go out into the world to attempt to make their own living, but that they shall (thru some work they can be taught to do) become at least partially self-sustaining here under direction and thus be of some use to themselves and to others.

It is necessary, however, that they shall always have our guidance, for to be self sustaining does not require the brain power and judgment that is necessary in order to be self directing.

We shall endeavor to give from time to time some thoughts on this vital question in education with the hope that it may encourage a wider use of manual training as part of the regular public school courses.

C. E. N.

This month's birthday party was one of the most enjoyable ever held. The children played games, sang and recited, exhibited their best work for the year and closed the evening with cakes.

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Nineteen of our children have been transferred to the New Jersey State Village for Epileptics at Skillman, N. J. While we are all very sorry to see the children go, we feel that "The Village" is especially constructed and equipped for those who suffer from this malady and we hope for improvement in each case.

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It is rather instructive to observe the changes which have come over methods of teaching during the past twenty or thirty years. The rote system with its signs, symbols and forms has almost given way to things themselves and instead of learning to repeat words, the aim now is to understand meanings. This same movement is noticeable in the abandonment of the teaching of rules and working out facts from them (the giving of the appearance of comprehension where there is none), and instead we are having the facts understood and rules evolved from these facts. As Spencer says; "To give the net product of an inquiry, without the inquiry that leads to it is both enervating and inefficient. While rules lying isolated in the mind—not joined to its other contents as outgrowths from them—are continually forgotten, the principles which those rules express piece-meal, become, when once reached by the understanding, enduring possessions."

AS OTHERS SEE US.

Some time ago Dr. David F. Lincoln, who was preparing an article on the Education of the Feeble-minded, spent several days at our School. The article appeared in the report of the Commissioner of Education and the following paragraphs concerning our institution are taken from this report.

Vineland is 34 miles nearly south of Philadelphia. The School is on a sandy, well-drained plain, in a wholesome locality. The buildings are well separated. The institution, is now in its seventeenth year. There are 325 pupils.

The school hours are 9 to 12 and 2 to 4, and are divided into periods of an hour each. At the end of each period the classes break up, the children making their own way quietly to the room where they belong for the next hour. At the begining of each school year each child is examined and assigned to such series of studies and periods as seem best suited to his needs.

A great many small children have been admitted during the past year, which has caused the establishment of new classes and helped classification and brightened up things, pushing into shop work some who might otherwise have staid too long in the classes. The manual classes average 8 or 9 pupils, the kindergartens 16, the others 13 to 15.

The sequence of work is shown in the following five selected classes:

1. "Beginners' class," 22 low-grade girls of the ages of 6 to 16 who are being trained in elementary tidiness, and taken every hour to the toilet. They use the simplest kindergarten material and play a few games.

2. Kindergarten for beginners; five hours a day with one teacher. They have the usual kindergarten work, except the gifts. They differ greatly; some are promoted to a primary class in a year, others may stay several years or may be assigned to manual work. I saw a very satisfactory ring game played ("blacksmith;" also "soldiers.")

3. Kindergarten class of older boys, held afternoons. These boys are scattered through other classes in the forenoon. They are less promising than 2, but are farther advanced; one-fourth may be promoted.

4. Boys aged 9 to 13, the most promising pupils in the school, spending two hours every afternoon, in numbers, English, nature, geography of the grounds, etc. Attractive and well behaved. Subtract four figures from four, borrowing; spelling taught by the method of preventing blunders meeting the eye, as far as possible. They gave good proof of accuracy and readiness with a list of short common words which I offered. They are in the first reader.

5. Five classes, with 55 pupils in all, much older than the preceding, who occupy one teacher's whole day in English, etc. Though much duller than 4, they have reached the second and third reader, and do the fundimental operations, except division.

A class was working in the spring on the Easter idea of the awakening of Nature, studying the unfolding of plants and the development of tadpoles and chicks.

Children are taken to visit special objects or points of interest, or they walk about the grounds with an object in view, and return to talk it over, then to draw, then to write it up. What is written in this way is found the best material for them to use in the process of learning to read. They "make their own readers."

In the evening there are classes in drill, music, sewing, higher English, and other subjects; there is opportunity for bowling; there is an hour for reading their library books.

(To be continued.)

The Training School.

Published monthly by the New Jersey Training School for Feeble-Minded Girls and Boys, Vineland, N. J. We wish this paper to be self-supporting. Send subscriptions (25c. per annum) to E. R. Johnstone, Superintendent.

The School was founded and incorporated as a public charitable institution in 1888 by a number of the philanthropic citizens of the State. It is built upon the cottage plan, so that close classification is possible, and is intended to give care and training to those children whose mental condition prevents their attending the public schools.

JANUARY 1906.

If your subscription has expired you will find a blue mark here. Will you kindly renew.

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We are glad to report that we have made a record of health. There have been no deaths at the Training School during the past twelve months.

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The regular report from the group of girls least able to do things, contained this sentence; "My girls are very happy even over the little they are able to do." A note from the Superintendent, asking what was done to make them happy brought the following:

"I think it makes them happy to praise their work and tell them how well it is done. They try hard to see how much nicer they can do next time and do it in a cheerful way.

In the afternoons we play school sometimes and have a real good time. Even those who cannot do anything crowd all around me while we are playing. Of course we can't do much with games, but they are happy playing their way. We dance about the floor and make plenty of noise and it is good fun."

Our Superintendent and his family are now comfortably settled in their new home. He has always claimed to be the happiest man in the world but now he says his cup is running over. Everything possible has been done by the Board of Directors to make it a home in every sense and the Lady Visitors by their beautiful gift have crowned their efforts.

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The Christmas festivities this year were all that could be desired. The entertainment "The Crystal Ball" was well given. One hundred and three children took part and all were the gainers for the training they received. Our audience was appreciative and enthusiastic and seemed well pleased.

The entertainment was repeated for the benefit of the piano fund, but a severe rain storm kept many away.

The program of Christmas week follows:

Dec.	23.	Party for Santa Claus and Hanging of stockings.
"	24.	Christmas services.
"	25.	Serenade 4.30 A. M. Distribution of stockings. Christmas Dinner. Entertainment 7.30 P. M.
"	27.	"The Crystal Ball."
"	28.	Stereopticon Entertainment. "African Mission Fields."
Jan.	1.	Reception to Employes.

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EXPERIMENTS.

Fertilizing Sweet Potatoes.

Object: (1). To determine whether the great excess of potash and phosphoric acid commonly applied to land where sweet potatoes are grown year after year is necessary to secure the best results.

(2). To determine what portion of the potash and phosphoric acid can be recovered from the soil by growing alfalfa or other deep rooted plants

after sweet potatoes have been grown four years.

The 1904 report of the N. J. State Board of Agriculture places the average crop of sweet potatoes in the vicinity of Vineland at about 40 barrels per acre. The usual amount of fertilizer applied per acre is 1000 lbs. containing 2 per cent to 3 per cent (20 to 30 lbs.) of nitrogen, 8 per cent to 9 percent (80 to 90 lbs.) of phosphoric acid and 10 per cent (100 lbs.) of potash.

Forty bbls. of sweet potatoes contain 16 lbs. of nitrogen, 5½ lbs. of phosphoric acid and 24 lbs. of potash. There is therefore left in the soil and in the vines when the yield is 40 bbls. per acre,—from 4 to 14 lbs. of nitrogen, 75 to 85 lbs. of phosphoric acid and 75 lbs. of potash.

EXPERIMENT.

One acre of the sweet potato field (Field O) was divided into 4 equal plots and treated as follows: Plots 1 and 2 (one quarter acre each) received:

60 lbs. nitrate of soda,
95 lbs. dried fish,
35 lbs, steamed bone,
100 lbs. acid phosphate,
70 lbs. muriate of potash.

Approximately equal to 700 lbs. per acre of a fertilizer containing 5 per cent nitrogen, 7 per cent phosphoric acid and 10 per cent potash.

Plots 3 and 4 (one quarter acre each) received:

30 lbs. nitrate of soda,
120 lbs. dried fish,
60 lbs. steamed bone,
210 lbs. acid phosphate.
120 lbs. muriate of potash.

Approximately equal to 1100 lbs. per acre of a fertilizer containing 2¾ per cent nitrogen, 9 per cent phosphoric acid and 11 per cent potash.

Plots 1 and 3 are to be left bare each winter. Plots 2 and 4 are to be sowed to rye after harvesting each crop, the rye to be plowed under the following spring.

This experimental acre was planted to field corn in 1903, To sweet potatoes in 1904, with the exception of ½ of plots 1 and 2, which strip was planted to corn. The entire acre was sowed to rye and plowed under May 1, 1905.

Ten loads of barnyard manure were broadcasted on the acre both 1903 and 1904.

The crop of sweet potatoes was harvested Oct. 17 and 18, 1905. Plots 1 and 2 yielded 302 baskets, weighing 7785 lbs. Plots 3 and 4 yielded 300 baskets weighing 7343 lbs. That is, the fertilizer having most nitrogen and least phosphoric acid and potash yielded 442 pounds more than the fertilizer having less nitrogen and considerable more phosphoric acid and potash. There were but two baskets more with the first fertilizer but the measurement was roughly made when brought from the field in unevenly filled baskets.

Why there should be so much difference in weight is not clear. It is intended to repeat the experiment next year on another plot while going on with the second year experiment as outlined.

Calculations from analyses of sweet potatoes show that the crops harvested from plots 1 and 3 used approximately the same amount of nitrogen and potash applied in the fertilizer, but only one quarter of the phosphoric acid. The crop harvested from plots 3 and 4 needs more nitrogen than was applied in the fertilizer, one-eighth of the phosphoric acid and one-half the potash.

The results of this five-year experiment may throw some light on the general principles of fertilizing crops and lead to other experiments to answer the question of what becomes of the quantities of fertilizer, especially phosphoric acid and potash that is mixed with the soil and not recovered in crops.

G. A. M.